Panel Scientific and Technical Review

(Note: Review comments will be anonymous, but public.)

Proposal number:2001-F213 Short Proposal Title: San Joaquin River Dissolved Oxygen

1a) Are the objectives and hypotheses clearly stated?

Summary of Reviewers comments:
This proposal suffers from having a large number of relatively weakly related projects lumped together. These hypotheses are not clearly described nor adequately linked to the overall DO problem. Another reviewer states, "The model appears relatively simple, but due to the complexity of the DO problem, there are multiple hypotheses."

Panel Summary:
Some of the hypothesis seemed redundant. Objectives were clear, but the hypotheses overlap.

1b1) Does the conceptual model clearly explain the underlying basis for the proposed work?

Summary of Reviewers comments:
One reviewer states that, "The model comes across as a shotgun approach to collect a lot of data without clearly describing how those data will be used to test the hypotheses." Another reviewer states that, "there is a clear written and graphical representation of the conceptual model."

Panel Summary:
There is a good summary of the issues, but it's very complex. The text accompanying the figures was not strong or clear. Some panel members thought the figures were overly simplistic.

1b2) Is the approach well designed and appropriate for meeting the objectives of the project?

Summary of Reviewers comments:
The relationship between each of the sub tasks is not identified. This lack of a clear relationship and feedback between each of the sub tasks suggests that there may be insufficient adaptive research. Another reviewer states that, "the proposal does not adequately address how the results from the individual projects will be used to address the questions and objectives of the project." The projects themselves are inadequately described. Several projects appear specious in the extreme, these include: 1)sediment oxygen demand by direct measurement, 2) algal growth and decomposition, 3) GIS-based watershed modeling and 4) diffused oxygen technology.

Panel Summary:
The design for a developing a TMDL may be done correctly, but it's not well tied together. Objectives and sub tasks are not tied together in a cohesive way. There was not significant detail on how they would achieve many of their tasks.

1c1) Has the applicant justified the selection of research, pilot or demonstration project, or a full-scale implementation project?

Summary of Reviewers comments:
One reviewer states that, "the problem of interest, ecological impacts from oxygen depletion among the San Joaquin river, remains in the research study phase." Another reviewer states that, "this research and monitoring project will likely provide a comprehensive assessment of the relative magnitude of the sources and processes, but it is not clear that all facets of all sub tasks are necessary for the success of the project."

One reviewer provided comments on the proposal which was not provided to the panel.

Panel Summary:
The panel believed the proposal was generally justified.

1c2) Is the project likely to generate information that can be used to inform future decision making?

Summary of Reviewers comments:
This project will definitely provide a wealth of valuable information needed to understand the sources and processes that affect DO in the lower SJR.

Panel Summary:
A lot of valuable information will be provided, but the usefulness of all aspects is questionable. Some tasks seem stronger than others. Information on process related topics will be useful, but management applications are unknown.

2a) Are the monitoring and information assessment plans adequate to assess the outcome of the project?

Summary of Reviewers comments:
One reviewer stated, "there is not much detail regarding the monitoring and information assessment plans for the applicable sub tasks but there is a provision in the project proposal for completion of such tasks."

Panel Summary:
There is no specificity to a task on how this would be accomplished. The proposal is vague on details.

2b) Are data collection, data management, data analysis, and reporting plans well-described, scientifically sound and adequate to meet the proposed objectives?

Summary of Reviewers comments:

One reviewer stated, "there is provision for reporting of all project sub tasks."

Panel Summary:

No, not at all. Perhaps this is due to the page limitation of the proposal.

3) Is the proposed work likely to be technically feasible?

Summary of Reviewers comments:

One reviewer states, "the individual projects are inadequately described." Another reviewer states that, "The proposed work appears to be technically feasible."

Panel Summary:

There is insufficient information to make this assessment. Some references are cited to help, but there is still not enough to evaluate. Team members may be qualified, but as presented, it's not evident from the proposal.

4) Is the proposed project team qualified to efficiently and effectively implement the proposed project?

Summary of Reviewers comments:

One reviewer states that, "Due to the large number of investigators involved in this project, it is unclear how the results will be integrated to provide answers to the questions posed." Who is going to step back and consider the data as a whole? Can this even be done? The proposal does not address this.

Another reviewer states, "The team already has a track record of successfully investigating a wide range of technical problems."

Panel Summary:

The members are very well qualified. They have a track record of success in many of the proposed areas.

5)Other comments

The proposal lacks sufficient "adaptive research" and the proposal seems to have been submitted prematurely. The proposal addresses a massive issue, yet there are a number of deficiencies in the proposal. Specifically, the details on the approach need to be explained, as well as a link between the sub tasks. As presented, it seems like there are many general projects, thrown together in one proposal.

The applicants need to prioritize the tasks, perhaps seeking help from the technical committee to assist and direct the integration of the goals. There seems to be a lack of direction as to the main thrust of this project. One reviewer suggested that the applicants should pare down the current proposal to address only the sub tasks or portions of sub tasks that are immediately and most urgently needed to proceed with the goal of identifying the most important sources of oxygen demanding substances and development of the key management tools needed to reduce dissolved oxygen depletion.

There are 19 subtasks in this proposal. The length requirements of the proposals consequently make descriptions of the subtasks very brief. One possible solution would be to submit multiple proposals with clear linkage.

Overall Evaluation
PANEL SUMMARY COMMENTS

The review panel appreciates the need for a TMDL and for this investigation for dissolved oxygen. The panel felt that some tasks would rate "very good" on their own. However, the inclusion of others did not seem to be central to the investigation. Because the panel understands the pressing timeline, we recommend that the dissolved oxygen steering committee revise the proposal by integrating the tasks, prioritizing the tasks and cutting the budget significantly to reflect the elimination of low priority and overlapping tasks (see above).
Summary Rating

Excellent
Very Good
Good
Fair
Poor

Your Rating: GOOD